

10/20/15 8:00 AM Senior Design Suite Meeting Minutes

8:07 - Jacquelin here, Sally here. Austin can't make it, Robert said he'd be late.

For Tuesday: will be going over the emails that Dr. Cohen and Robert has sent, because there are things in there that we need to discuss as a team. So in preparation for tomorrow, please read the emails.

8:22 - Emails

- Looks like Dr. Cohen is open to buying a new computer, as long as it's not too expensive. Could find a used desktop at Best Buy, VGH, Staples, Amazon, storage?
- Find a new computer for ourselves to use, and see if we can transfer the program later.

8:28 - Robert here

8:30 - Moving program over?

- Need Visual Studio, can move from windows 2000 to windows 2010
- <http://www.microsoft.com/en-us/download/details.aspx?id=23507> (link to visual studio 2010 download)
- **Send Robert photos for bios on wiki page**

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From Sally:

First we will be reviewing what everyone has done so far, meaning your assigned assignments. So be sure to have those done (it will be reflected on your citizenship, if you don't get your assigned tasks done on time, just warning you 😊).

Then we have some major decisions to make. I will share with everyone what I learned about the magic silver box (which I don't really like at the moment) and everything else that I may/may not have made progress on. After the meeting is over, we need to have a few things done and decided. So this is what you need and what you will get out of the meeting:

1. Your assigned tasks that is due (10/27) should be done. Check the Project Learning spread sheet if you don't know your assigned tasks (I really hope you know your tasks 😊). Check often, because they do get updated.
2. We will make a decision of whether or not to get a new computer for our project.
3. How we are going to tackle the problem of the DB37 and Twister Program. Whether we Frankensteins a thing for it or we straight up replace the whole thing, or we just sit there and stare at it while eating gummy bears.
4. Know what your next assigned tasks are and have it ready by the due date.
5. Review individual and general goals, and team dynamic

8:09 - Everybody here.

8:11 - Sally's things

- picked out a bunch of ropes, found a covered cable that looks good
- weights, probably easiest to take a chunk of steel and machine it
- Pulley picked out. Has no hole, but we can figure that out. Nice because it has a base.

8:13 - Austin, headpiece

- going to be like the rest of the twister's attachment
- make the attachment curved?
- redesign the spring thing, maybe find a ball joint
- Austin will look into redesigning.

8:17 - Robert, wiki page and code

- all sections are there
- will go to the meeting and see exactly what they need
- code is working, buttons and interface work! All the connections are there.
- Have code, going to try it on Sally's computer using an install package
- Sally's friend got the code working by building it in Visual Studio 2015

8:25 - Jacquelin, harness

- Bill of materials by thursday
- Cable placement, need to push each other around more

8:31 - Magic silver box

- red tape/black tape, red tapes go to position sensor
- smaller box splices 37 pin connector into different pins
- Microcontroller goes through ethernet and to 37 pin
- board with duct tape is probably for torque sensors
- Giant thing is a power supply
- So a couple options:
 - locate or create a 37 pin connector converter, or convert it to DB9?
 - Replace the system. everything would go except the motor, replaced by a modern microcontroller board.
- Cohen's system is compatible with up to Windows 8, so if we replace the system we need an older OS

8:47 - Thursday

- talk to Wolbrecht, make sure our plan is ok to get a new computer and scrap the system
- Are there any microcontrollers he recommends?
- everybody's jobs done

For thursday:

- Pick out a rotary encoder
- Jacquelin have a BOM
- Sally have weights figured out
- Austin finish headpiece
- Robert have wiki page done, help Jacquelin with rotary encoders
 - email project learning and photos

9:05 - adjourned.

- Loops of ropes like rock climbers use to create tension when we want it?

8:38 - Data acquisition?

- Motion Monitor is willing to help us and code for an A/D converter, which would avoid us having to spend hundreds on a new system.

8:39 - Harness

- for now, going with the y-split idea
- **Find a replacement for the purple headpiece missing**

Jobs list

- (A) Headpiece needs to be made
- (J) Harness needs to be modified or recreated
- (S&R) Look at Dr. Cohen's system (get access to her lab?) and start learning how to use it
- (all) Send photos
- (all) Ask around for advice on moving twister program
- (?) Build a proof-of-concept twister?
- (?) Electromagnets for dropping weights and system holding them, rotary encoder?
 - think of designs, should be easy

- (S) Max height for person once Twister is in her lab, how to mount head piece?
- (R) Twister Code
- By thursday, have tentative assignments
- By next tuesday, have definite assignment of jobs and get started